

REMARKS

In the last Office Action, the Examiner objected to claims 72, 73, 91, and 92; rejected claims 31-42, 44, 45, and 49 under 35 U.S.C. § 103(a) as being unpatentable over Ho et al. (U.S. Patent No. 5,552,053); and rejected claims 31-58, 60-71, 74-78, 80-90, and 93-113 under 35 U.S.C. § 103(a) as being unpatentable over Ho et al. in view of Markell et al. (U.S. Patent No. 5,328,758).

By this Amendment, Applicants have amended claims 72 and 91 to correct the claim dependency issues noted by the Examiner. Accordingly, the objection to claims 72, 73, 91, and 92 should be withdrawn.

Applicants respectfully traverse the rejection of claims 31-42, 44, 45, and 49 under 35 U.S.C. § 103(a) as being unpatentable over Ho et al. No *prima facie* case of obviousness has been established with respect to claims 31-42, 44, 45, and 49 for at least the reason that Ho et al. fails to disclose or suggest every claim element. For example, independent claim 31 recites a combination of elements including, *inter alia*, a passive sampling device for monitoring micropollutants in an aquatic environment, where the device includes a diffusion-limiting membrane and a receiving phase for receiving and retaining micropollutants, the receiving phase being separated from the aquatic environment by the diffusion-limiting membrane. Ho et al. fails to disclose or suggest at least these claim elements.

The Examiner has maintained that Ho et al. discloses a diffusion-limiting membrane at col. 1, lines 22-35. Applicants have noted that the cited passage does not describe a diffusion-limiting membrane or any other type of membrane. While Ho et al. refers to an embodiment where a solid poly-amphiphilic polymer is overlaid or cast on a porous hydrophobic support, Ho et al. fails to describe the overlaid polymer as a

diffusion limiting membrane. In fact, the lack of disclosure in Ho et al. of a diffusion-limiting membrane is not surprising in view of the intended use of the Ho et al. device for promoting transfer of a dissolved species from one fluid to another.

Further, the Examiner has maintained that Ho et al. discloses, at col. 10, lines 42-45, a receiving phase for receiving and retaining micropollutants. Applicants respectfully disagree. Rather than describing a material designed for receiving and *retaining* a particular species (e.g., a micropollutant), Ho et al. clearly discloses, in the cited passage, the need for a material having characteristics that encourage “*transport*” of a target compound from one fluid to another fluid. There is no disclosure or suggestion in Ho et al. of a receiving phase that receives and retains micropollutants. There is certainly no disclosure of a receiving phase that could retain sufficient levels of micropollutants to serve in a passive sampling device that monitors micropollutants in an aquatic environment.

Because Ho et al. fails to disclose or suggest every claim element, no *prima facie* case of obviousness has been established with respect to claim 31. Accordingly, the Section 103(a) rejection of claim 31 and claims 32-42, 44, 45, and 49, which ultimately depend from claim 31, is improper and should be withdrawn.

Applicants also respectfully traverse the rejection of claims 31-58, 60-71, 74-78, 80-90, and 93-113 under 35 U.S.C. § 103(a) as being unpatentable over Ho et al. in view of Markell et al. No *prima facie* case of obviousness has been established with respect to claims 31-58, 60-71, 74-78, 80-90, and 93-113 for at least the reason that no combination of Ho et al. and Markell et al. teaches or suggests every claim element. For example, independent claims 31, 58, 78, 97-100, and 108-113 each recite

combinations of elements including, *inter alia*, passive sampling device for monitoring micropollutants in an aquatic environment, where the device includes a diffusion-limiting membrane and a receiving phase for receiving and retaining micropollutants, the receiving phase being separated from the aquatic environment by the diffusion-limiting membrane. As noted above, Ho et al. fails to disclose or suggest at least these claim elements.

Additionally, independent claims 50 and 103-107 recite combinations of passive sampling method steps including, *inter alia*, providing a receiving phase for receiving and retaining micropollutants and providing a diffusion-limiting membrane, which separates the receiving phase from an aqueous environment, adapted to allow rate-limited diffusion therethrough of the micropollutants. Ho et al. also fails to disclose or suggest at least these claim elements.

Markell et al., which appears to have been cited only for its disclosure of “another type of microporous material” that can be used in place of the hydrophobic microporous material of Ho et al., as noted by the Examiner, fails to remedy these deficiencies of Ho et al. That is, even if there would have been motivation to combine Ho et al. and Markell et al. in the manner suggested by the Examiner, the proposed combination would still teach nothing more than a device suitable for transporting a target species from one fluid to another. The combination would not yield a passive sampling device that includes a diffusion-limiting membrane and a receiving phase that receives and retains micropollutants.

Because no combination of Ho et al. and Markell et al. discloses or suggests every element of claims 31-58, 60-71, 74-78, 80-90, and 93-113, no *prima facie* case of

obviousness has been established with respect to these claims. Accordingly, the Section 103(a) rejection of claims 31-58, 60-71, 74-78, 80-90, and 93-113 is improper and should be withdrawn.

Applicants respectfully submit that newly added claim 114, like the other pending claims, is in condition for allowance. For example, none of the cited prior art references discloses or suggests placing a passive sampling device in contact with the aquatic environment and receiving and retaining, in the passive sampling device, a quantity of the micropollutants from the aquatic environment, where the passive sampling device includes a hydrophobic support material, a solid phase material bound to the hydrophobic support material and configured with a sufficiently high affinity for the micropollutants in the aquatic environment to receive and retain the quantity of micropollutants, and a diffusion-limiting membrane configured to separate the aquatic environment from the solid phase material and to allow rate-limited diffusion therethrough of the quantity of micropollutants.

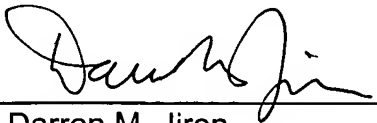
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: November 23, 2004

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